Understanding the referral pathway from basic to comprehensive emergency obstetric and newborn care in humanitarian-affected settings in Nigeria and Central African Republic

Cross-Country Synthesis

OVERVIEW

2024 began with almost 300 million people in need of humanitarian assistance globally, with, as always, women and girls bearing a disproportionate burden of impact.[1] As an intergovernmental panel on climate change found, "Women and girls in crisis settings struggle to access land and other productive assets; they struggle to access life-saving services, including sexual and reproductive health care; they are more likely to die from causes related to pregnancy and childbirth, and pregnant women are the most impacted by climate-driven food insecurity and malnutrition."[2] More than 26 million women and girls of reproductive age live in emergency situations, all of whom need and deserve high-quality health services.[3] And yet, the global community is failing on reaching those in need with life-saving sexual and reproductive health services, as seen by the fact that the 25 countries that have a 2024 international humanitarian appeal are responsible for 58% of global maternal deaths, 38% of newborn deaths, and 36% of stillbirths.[4]

Many of these deaths can be prevented with evidence-based care, including timely identification and management of emergency obstetric and newborn complications. For some complications, this requires referral to higher-level care, but delays and challenges can significantly impact health outcomes. Therefore, ensuring a functional referral pathway between facilities that are classified to deliver basic and comprehensive emergency obstetric and newborn care (BEmONC, CEmONC) services is critical. Reflecting this, the EmONC signal functions are being re-envisioned at global level, with a proposal to include a new signal function around referral that would stress availability of ambulances with trained and equipped providers.

There is little information available within humanitarian settings as to the effectiveness of current referral protocols, how systems dynamics impact successful health outcomes, and how best to improve systems to better meet the needs of women, girls, and newborns. The goal of this study was to examine practices and experiences of care along the referral pathway from BEmONC to CEmONC facilities, and identify recommendations for strengthening referrals and improving experiences of care for clients. The research study was undertaken in select sites in Yobe and Borno states in Northeast Nigeria and Bocaranga-koui, Nana-Grébizi, and Haut-Mbomou prefectures in Central African Republic, where protracted insurgency and conflict have weakened the health system and increased barriers to care-seeking.

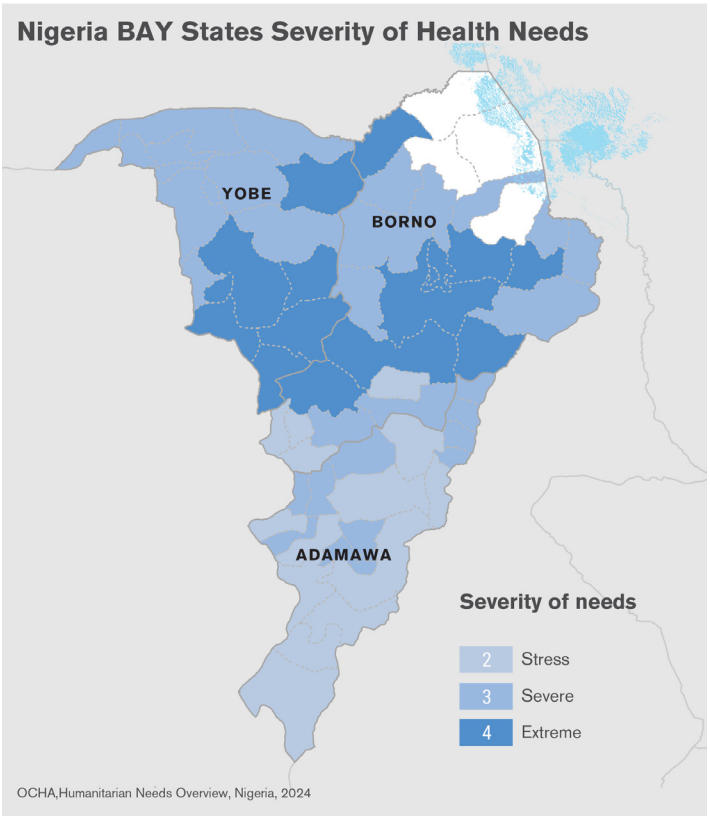
[1]OCHA, Global Humanitarian Overview, 2024
[2]Intergovernmental Panel on Climate Change, Climate Change 2023 - Synthesis Report of the IPCC Sixth Assessment Report (AR6) – Longer Report, March 2023
[3]Global Health Cluster, Sexual reproductive health and rights in emergencies. https://healthcluster.who.int/our-work/thematic-collaborations/sexual-reproductive-health-and-rights-in-emergencies
[4]Align MNH, Mortality in Humanitarian Settings Dashboard, 2024.

NIGERIA

For more than 14 years, Northeast Nigeria has been impacted by sub-national conflict[12], facing "many social and economic challenges that include insecurity such as banditry and kidnappings especially in the northwest region, continued insurgency by terrorist groups in the north-east, and separatist agitations in the south-east."[13] This has led to widespread displacement, violations of international humanitarian and human rights law, protection risks, and extremely high numbers of maternal and newborn deaths. The national government of Nigeria has prioritized maternal and newborn health (MNH) in many recent policies and frameworks, yet despite this progress, the escalation of violent conflict in Borno, Adamawa, and Yobe (commonly referred to as the BAY states) has caused an acute humanitarian crisis with more than two million IDPs, the majority of whom are in Borno state. Security remains highly volatile, and challenges of access are routinely faced due to attacks that often suspend response activities.

In 2023, 40% of health facilities in the BAY states were either damaged or destroyed.[14] This leaves some patients having to travel distances of up to 70km on poor roads to reach the closest facility, to then find that many often lack equipped ambulances, appropriate medicines, and sufficient staff and infrastructure. The limited number of CEmONC facilities leads to a high volume of patients and compromised quality of care, and providers encounter multiple communication barriers when trying to communicate between facilities or with patients. In addition, there is no national policy on referral systems, which means referrals are organized through a happenstance manner, dependent upon implementing partner practice, current insecurity levels, and subjective opinions. This impedes the ability to counsel the community on how to access services and what to expect, and leaves many patients falling through the cracks.

- **Maternal mortality rate:** 1,047 maternal deaths per 100,000 live births (2020)[5]
- **Neonatal mortality rate:** 34 newborn deaths per 1,000 live births (2022)[6]
- **Stillbirth rate:** 23 stillbirths per 1,000 total births[7]
- **Nigeria:** 51% of births delivered by a skilled provider[8]
- **Yobe State:** 17.8% of births delivered by a skilled provider[9]
- **Borno State:** 25.9% of births delivered by a skilled provider[10]
- More than 5.3 million people across the BAY (Borno, Adamawa, and Yobe) States were identified as requiring health assistance in 2024[11]



[5]Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva: World Health Organization; 2023.
[6]Ibid.
[7]United Nations Inter-Agency Group for Child Mortality Estimation (UN IGME), United Nations Children's Fund, Never Forgotten: The Situation of Stillbirth Around the Globe, 2023.
[8]UNICEF, State of the World's Children, Child info and Demographic and Health Surveys. World Bank, 2022.
[9]National Population Commission - NPC/Nigeria and ICF. 2019. Nigeria Demographic and Health Survey 2018. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF.
[10]Ibid.
[11]OCHA, Humanitarian Needs Overview Nigeria, 2024
[12]World Bank, FY25 List of Fragile and Conflict –affection Situations, 2024.
[13]World Bank, The World Bank in Nigeria, 2024
[14]OCHA. Humanitarian Needs Overview, Nigeria. February 2023.

For this study, IRC included 8 BEmONC facilities and 2 CEmONC facilities across Borno and Yobe states. At the start of the study, half of the BEmONC facilities and both CEmONCs reported operating 24 hours/day, and program data showed that facility readiness to deliver signal functions varied. While both CEmONCs performed all expected signal functions, none of the BEmONCs reported providing assisted vaginal delivery, with some also not performing removal of retained products or neonatal resuscitation. BEmONC facilities were commonly reporting challenges with arranging transportation for referrals, with three reporting no form of transportation routinely available at the facility (including through personal ambulances, private agreements with taxis, or use of vehicles from partners or the district). This operating reality greatly highlighted the need to better understand how EmONC care is being accessed, and the role of the referral pathway in care-seeking.

CENTRAL AFRICAN REPUBLIC (CAR)

Defined as a conflict-affected country by the World Bank[21], CAR "ranks at the bottom of the human capital and development indices. Its institutions are weak, its citizens have limited access to basic services, infrastructure is woefully inadequate, gender-based violence is widespread and the social fabric has been eroded."[22] It has been plagued by multi-faceted crises for over ten years, and the continued presence of armed groups has increased rates of violence against civilians, and extreme flooding causes perpetual displacement. Instability in neighboring countries, particularly Chad, Sudan, and South Sudan, impact the local economy and lead to continued high levels of refugees. OCHA estimates that in 2024, 2.8 million people in CAR will need humanitarian assistance and protection, with rates of gender based and sexual violence reaching worrying levels.[23]

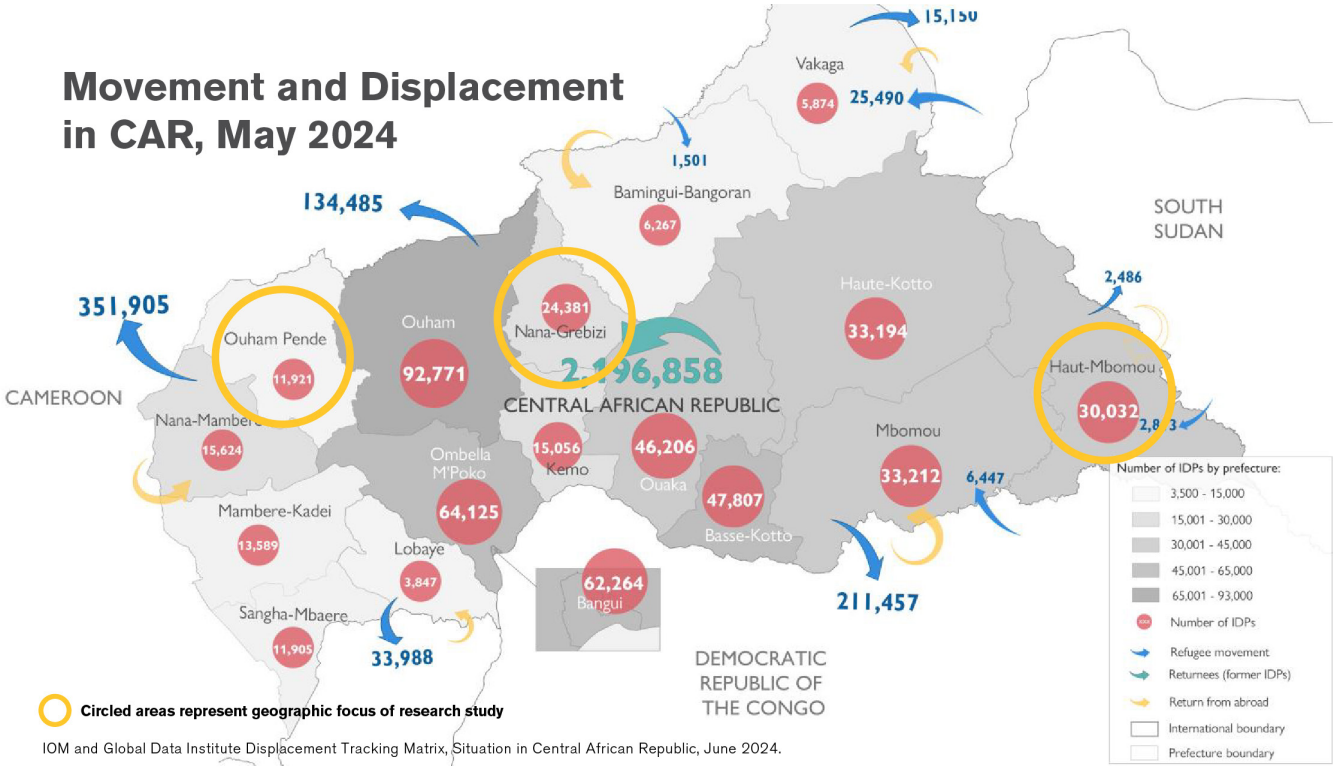
Similar to Nigeria, the years of conflict and fragility have weakened the health system in CAR. The country is off-track to meet 2030 Sustainable Development Goal (SDG) targets for MNH, ranking among the top 20 in the world for rates of stillbirths, neonatal mortality, and maternal mortality. The

- **Maternal mortality rate:** 835 maternal deaths per 100,000 live births[15]
- **Neonatal mortality rate:** 31.7 newborn deaths per 1,000 live births[16]
- **Stillbirth rate:** 26 stillbirths per 1,000 total births[17]
- 29.7% of deaths among women of reproductive age due to maternal causes, the 4th highest in the world[18]
- 40% of births attended by skilled health staff[19]
- Nearly 1/3 of deaths among women of reproductive age are due to pregnancy and childbirth[20]

[15]Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva: World Health Organization; 2023
[16]United Nations Inter-Agency Group for Child Mortality Estimation (UN IGME), United Nations Children's Fund, New York, 2024
[17]United Nations Inter-Agency Group for Child Mortality Estimation (UN IGME), United Nations Children's Fund, Never Forgotten: The Situation of Stillbirth Around the Globe, 2023.
[18]Ibid
[19]OCHA. Humanitarian Needs Overview, Central African Republic. 2024.
[20]UNICEF, State of the World's Children, Child Info and Demographic and Health Surveys, Central African Republic. World Bank, 2019.
[21]World Bank, FY25 List of Fragile and Conflict –affection Situations, 2024.
[22]World Bank, The World Bank in Central African Republic, 2024
[23]OCHA, Humanitarian Needs Overview, Central African Republic, 2024.

uneven geographical distribution of health centers and skilled providers is partly to blame for the dire reproductive health statistics. For example, 93% of the country's midwives work in urban areas, despite that 60% of the country's population is concentrated in rural areas.[24] Access to high-quality facility care is deeply disrupted by ongoing tensions and infighting, as transport, supplies, and commodities are all limited by a lack of roads, and high safety concerns for both clients and providers in transit means curfews are common and referrals can be impossible to arrange. A lack of financial resources strangles what little of the health system does function, as the budgets of some international agencies are larger than the Ministry of Health's budget.[25] It is not uncommon for clients to report having treatment or discharge refused until medical bills are settled. These insights highlight the need to learn more regarding how to improve access to care and the referral pathway for those that need higher-level care.

Within the prefectures identified for this study, IRC selected 8 BEmONC facilities and 3 CEmONC facilities, only two of which – both CEmONCs – were routinely performing all respective signal functions. While a majority of the facilities were able to make services available 24/7 through the addition of on-call services, many had limited routine operating hours, and the distance to the nearest facility with a Special Newborn Care Unit or Neonatal Intensive Care Unit was reported as up to 45km, which can take up to two hours to reach. Among BEmONC facilities, program data found that all were routinely performing provision of parenteral antibiotics and manual removal of placenta, but none performed assisted vaginal delivery and less than half administered anticonvulsants, removed retained products, or performed neonatal resuscitation. In addition, only one quarter of BEmONCs reported having their own designated means of transporting patients, with almost all facilities reporting having agreements with private taxis, that likely require patients to pay, or otherwise patients must arrange their own transport. These challenges highlighted a clear need to better understand how the system in CAR is, and is not, working for EmONC patients.



IOM and Global Data Institute Displacement Tracking Matrix, Situation in Central African Republic, June 2024.

[24]Ibid.
[25]Médecins Sans Frontières, CAR: "Our midwives are working as first responders", November 2016.

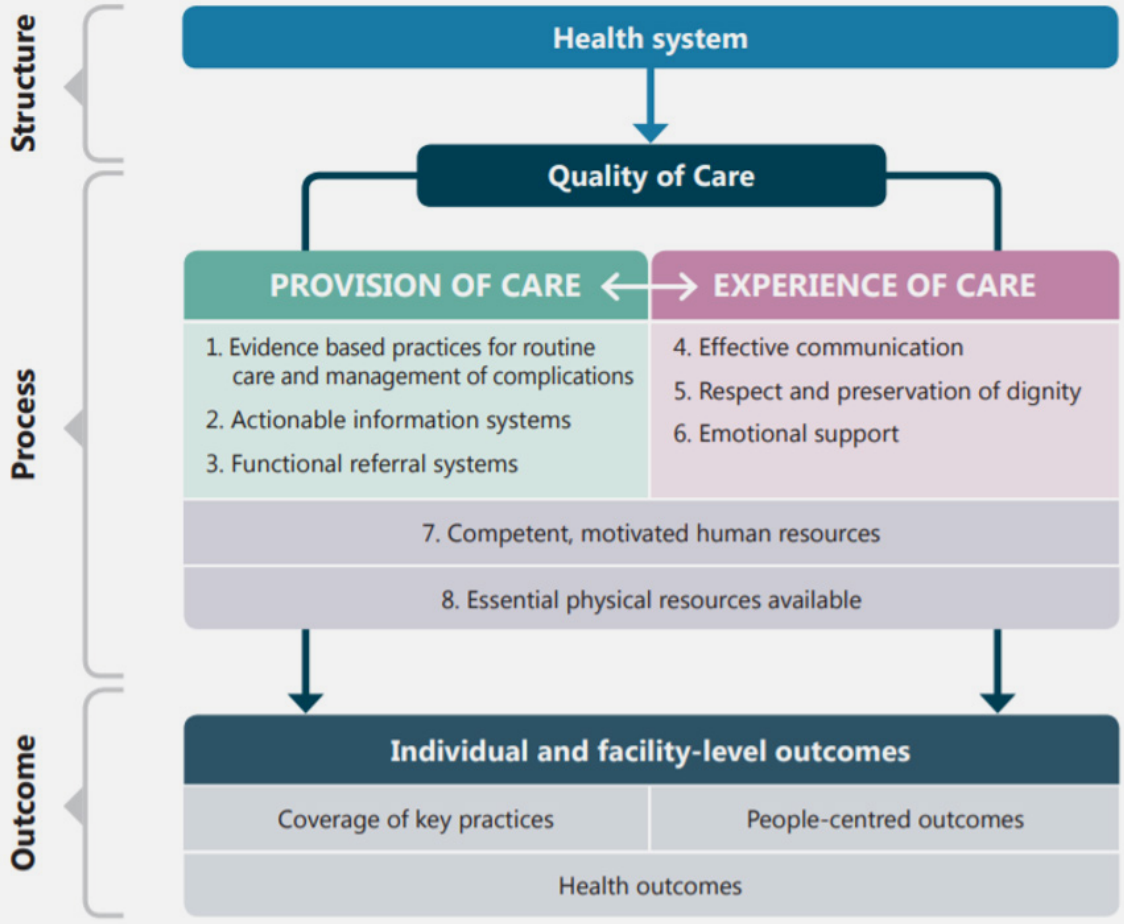
RESEARCH STUDY

The IRC conducted a qualitative study from June 2023 to July 2024, guided by the WHO framework for the quality of maternal and newborn health care (Figure 1), which defines key domains for delivering effective and high quality care. This study obtained ethics approval from the IRC's Institutional Review Board, as well as the National Health Research Ethics Committee in Nigeria and Le Comité Ethique et Scientifique de la Faculté des Sciences de la Santé et de l'Institut Pasteur de Bangui in CAR.

Across both countries, we aimed to interview a minimum of 75 clients and 52 providers until we reached saturation. Through purposive sampling, in-depth interviews were conducted with women and adolescent girls who sought care for EmONC services (34 in Nigeria; 50 in CAR) to document their care-seeking and referral experiences and perspectives. Semi-structured interviews were conducted with BEmONC and CEmONC providers (32 in Nigeria; 30 in CAR) to capture perspectives of and experiences with the referral system and identify barriers and facilitators to providing quality care for such cases. Participants gave informed consent before participating in the study, and data collectors were trained on trauma-informed interviewing practices. Protocols were in place for participants that required mental health and psychosocial support from their experiences.

Interviews were conducted in local languages, transcribed, and translated into English. They were then analyzed against the domains of the WHO framework for the quality of maternal and newborn health care. Data analysis workshops were held in each country with Technical Advisory Groups and key stakeholders to vet findings and identify recommendations.

Figure 1. **WHO framework for the quality of maternal and newborn health care**



RESULTS

Below are some notable findings that emerged, presented per the WHO framework for the quality of maternal and newborn health care.

Provision of Care: Evidence-Based Practices, Actionable Information Systems, and Functional Referral Systems

In both countries, providers identified that a major challenge to ensuring effective referral between facilities was the absence of a clear or standard policy on the referral process, remarking that this led to confusion and arbitrary or subjective decisions about when and how to refer a patient. In Nigeria, while the federal government notes the existence of a national referral protocol, it has not been sufficiently disseminated down to state level, and many providers and health facility managers were unaware of its existence. Instead, facilities follow guidelines specific to a project or organization, leading to a fragmented approach to referrals. In addition, providers from each country remarked that a lack of guidance on conducting mortality audits meant there wasn't consistency or clarity on how to consider the role the referral pathway played in impacting a fatality, nor were there guiding documents on how to audit a referral itself or to effectively monitor a referral pathway. This uncertainty or lack of knowledge around referral protocols appeared to be the primary cause of delayed referrals in CAR, according to providers.

In both countries, this lack of metrics on the effectiveness of the referral pathway was then further aggravated by a broken communications / feedback system. Due to hampered telecommunications, an absence of standardized referral forms, and oftentimes limited inter-facility professional or personal relationships between providers (due to few, if any, mentorship or professional networks), very little communication occurred between facilities to discuss or alert about incoming referrals, and feedback loops were broken or nonexistent. A few motivated providers noted efforts to follow up directly with families to learn of referral outcomes or to encourage follow up visits, but writ large, providers believed feedback loops were desperately needed to improve referrals. With these compounding factors, most respondents believed there were minimal ways to monitor a referral pathway, and rather felt they were left on their own to determine how to navigate a fractured health system.

Once a decision to refer was made, both clients and providers noted that the season, time of day, and insecurity all affected the referral duration. For instance, rainy season could make the roads impassable and prolong transportation time, especially if a boat or canoe needed to be procured for referral. Insecurity placed clients in circumstances where communications with security or armed groups were necessary to obtain permissions to pass a checkpoint, thus lengthening referral time. Insecurity also impacted clients' decision to accept a referral in terms of personal safety – with several noting that they didn't want to travel at night, they were scared of road accidents or being stranded, or were fearful that they wouldn't be able to get back home once they made the trek to a referral facility. Similarly, providers considered insecurity when making a referral, with some choosing to do so proactively during the day to avoid potential risks of traveling at night.

> *"For us, even if there is a security problem, i.e. there is a presence of armed men in the village or on the road and a referral is necessary, we take the decision to refer the person. But it's … delayed by the patient's relatives. Often, in such cases, we report the situation to those in charge of the armed men to ask for their indulgence so that the patient can be referred."*
>
> BEmONC provider, CAR

Financial considerations played a prominent role for clients as they engaged with the referral system. While both countries theoretically have policies to offer some MNH services for free, the implementation of those policies varied, and clients were wary about when they would have to pay for what. Some clients shared stories of going into debt unexpectedly or the financial implications of a referral leaving them no choice but to decline. In a few extreme cases in CAR, clients reported facilities and providers kidnapping them until their hospital bills were paid. High prices of fuel, drugs, and equipment were often noted by clients and providers alike, with care being delayed in some cases until clients could purchase both drugs and commodities, including even syringes and medical gloves for doctors. In Nigeria,

some providers shared that when a referral was critically needed, but they feared a client would decline due to financial costs, the provider would lie to the client and assure them that care would be free once they arrived at the receiving facility. Unsurprisingly, this led to a lack of trust among community members and could negatively impact future relationships with the health system.

> *"When they said we should go [to the referral facility, because] they can't treat us, we went back home for two days because we don't have money."*
>
> BEmONC client, Nigeria

The engagement of the community was an additional influential factor noted by both providers and clients with regards to health counseling and referral acceptance. Particularly in CAR, the existence of a community mechanism with strong involvement of local authorities helped convince patients to accept referral and, in some instances, even to arrange transport. Conversely in Nigeria, the study heard several notable references to religious beliefs within the community influencing decisions – for example, references to jinn, the belief in spirits or demons[26]. When considering options for referral, some clients conferred with or spoke to community members who believed that a woman convulsing was the result of possession, and that referral onward for care would be pointless as medical interventions couldn't save her from the demons.

A major notable difference between the two countries

> *"…others [were] saying that we should not go to hospital because of how my blood is draining fast; they say it is the act of witchcraft and the rest, but we did not listen to them".*
>
> CEmONC client, Nigeria

was the existence of referral focal points in Nigeria. This seemed to be a unique position, where a dedicated officer was hired by INGOs, placed directly within the facilities, and given a mandate to coordinate referrals between BEmONC and CEmONC facilities, taking into consideration patient load/bed space, care needed, distance, and insecurity. Numerous providers remarked that in the midst of broken communication channels and opaque referral processes, being able to communicate with a referral focal point helped create a smooth process and eased concerns.

Experience of Care: Effective Communication, Respect and Preservation of Dignity, and Emotional Support

Based on what was heard from clients, communication styles can overwhelmingly be improved between providers and clients. Many clients remarked on not fully understanding why they were being referred, what care had been provided to them or would be provided to them during their care-seeking journey, and what the implications or options would be for referral. That said, clients were also not particularly negative about this, with some saying that they weren't especially familiar with the health system and therefore didn't know what questions to ask or even that they were allowed to ask questions of the providers in the first place. Indeed, respondents from both countries, but particularly more so in Nigeria, reflected upon this being their first experience with the formal health system and therefore not knowing what to expect or what was reasonable.

Importantly, some clients noted that providers had shared information about their case or sought consent from available family members or companions, which these clients deemed sufficient in terms of communication. However, in certain instances, this lack of direct provider-client communication became a severe issue when arriving at a CEmONC facility, as clients had very limited information to share about their cases and diagnoses, and almost no documentation accompanying them, leading to delays, replication of certain tests or interventions, and sometimes even conflicting diagnoses. This of course led to frustrations, dissatisfaction, and increased costs.

Interestingly, and perhaps as a reflection of strained communications between providers and clients and therefore limited health knowledge among clients, clients in both countries invoked "God" and "God's will" when talking about their condition or health outcomes. Clients did so when expressing acceptance

[26]Pew Research Center, The World's Muslims: Unity and Diversity, Chapter 4: Other Beliefs and Practices, 2012.

for a situation such as a poor health outcome (e.g., the death of a newborn was ultimately "God's will" and nothing could have been done to save the newborn) or they credited God for allowing them to survive a risky health complication (e.g., it wasn't the operationalization of the referral system that saved their life but rather God wanted them to live and saw to it that they received needed care). Providers also invoked "God's will" to express their hope that the conditions in their facility would one day improve. It's unclear if further medical explanations from providers would combat this strong religious belief and change care-seeking or not.

Respectful care issues were also prominent in both countries. There were reports of mistreatment, disregarding clients' wishes, including ignoring requests to be referred, lying or tricking clients, and verbal abuse, such as providers telling clients they shouldn't express their pain. Interestingly, however, clients in CAR primarily preferred care at CEmONC centers, believing it to be more efficient and higher quality, while clients in Nigeria overwhelming preferred to receive care at BEmONC centers, finding them to be more personal and responsive. Notably, respondents in both countries were overwhelmingly disappointed by the cleanliness of facilities, abhorring a lack of soap and latrines, and in some instances suggesting that the cleanliness of a facility might influence their decision about referral.

"When I arrived at the facility to give birth, the matron refused to deliver me. She said that the midwife had given instructions that no one was to deliver me because I had refused the transfer. I said I was sorry and took a loincloth to lie on the floor. Then I started pushing the baby. That's when the matron came to deliver me. With God's grace, the delivery went well, but it was the child who was sick. We were transferred to the next level."

CEmONC client, CAR

"To be honest, I wasn't happy because I prefer to deliver here since this is the place that I do my antenatal and they really give me maximum attention and care here than the general hospital."

BEmONC client, Nigeria

Additionally, fear of referral was observed in both Nigeria and CAR for a myriad of reasons, including hearing of or personally having a previous poor experience in a health facility, assumptions about overmedicalization or unnecessary medical interventions like surgery at higher-level care facilities, beliefs that referral would necessarily lead to traumatic or poor health outcomes like death, or concerns about being able to return home after the referral. However, some clients did share that positive feedback from their peers was a motivating factor to seek out care and accept a referral. A few clients in Nigeria remarked that while scared, they also strongly believed that a referral meant their condition was serious and that they had no choice but to accept.

Financial difficulties impacted the ability to procure transportation in both Nigeria and CAR, and in the rare instances where transportation was provided by a facility, the quality of care during transportation was described as poor or nonexistent. Transportation methods frequently require separation of mother and baby – for example, it's difficult to ensure the safety of a newborn when a sick mother is riding on the back of a motorbike. Yet, interestingly, many respondents from both countries stressed that separation rarely happens, seeing these instances as acceptable exceptions. That said, in Nigeria at least, it also seemed somewhat common that in the instances where mothers and babies were separated, an emphasis was placed on trying to bring them together again as soon as possible, or as frequently as possible to maintain continuity of care and promote breastfeeding.

"It can even take up to three hours because of the time needed to collect money and find the motorcycle. What's more, the motorcycle cab has to be paid first before it can transport the patient. Finally, insecurity, the season, etc. can have a significant impact on this time."

BEmONC provider, CAR

"Yes, mothers are often separated from their babies. If the mother is seriously ill… we can't wait for the baby to be treated before referring the woman. We take a motorcycle to refer her and the baby can follow afterwards."

CEmONC provider, CAR

While the interview guides did ask about companionship during experiences, responses were limited and ultimately more research is warranted, especially to better examine championship for more vulnerable respondents. That said, clients and providers alike emphasized the importance of having a companion throughout care-seeking journeys, with clients remarking that companions offered both physical and emotional support during the referral, and providers finding companions convenient for discussing service provision and care options, especially when a woman might be unconscious or out of sorts. Companions were typically family members (spouses, parents, siblings and in-laws), although others mentioned engaging friends, neighbors, or healthcare providers (including traditional birth attendants) along their journey.

Competent, Motivated Human Resources, and Essential Physical Resources Available

> *"… I have to call the referral team. To my surprise, there is no referral person at the night shift in all three hospitals [to where we] refer our cases. That is beyond our control."*
>
> BEmONC Provider, Nigeria

Severe insufficiencies regarding available human and physical resources were reported in Nigeria and CAR. In both countries, inadequate means of transportation for referrals – as well as a lack of qualified healthcare providers to accompany patients during transportation – was frequently referenced. Furthermore, respondents noted a lack of available qualified providers at facilities overall, and particularly of female providers. Clients in both countries expressed a desire to have female providers and to receive care from doctors, as there is a belief that the highest trained provider will deliver the best care. Training shortages were consistently noted, with some providers reporting that their most recent training was over four years ago, and others in CAR reported receiving no specialized training, and instead learning from colleagues. Some providers in Nigeria perceived favoritism at play in terms of who gets to attend trainings, leaving others woefully in need.

> *"Seriously, the quality of care there is something else, and it's not satisfying, because some days it's luck to meet the doctor present; you meet only him sometimes; sometimes he is performing theater; even if you refer, you have to wait. You see, that's a challenge, and there is a serious gap. They lack enough manpower, and sometimes their activities are not properly documented, and you see, without documentation, there is no proper feedback."*
>
> BEmONC Provider, Nigeria

A shortage of medicines and the cost of medicines was among the top complaints from clients in both countries, with some noting that they had to stop along the referral pathway between facilities to buy necessary supplies. However, in CAR, clients did express gratitude for some of the complimentary services that were available in a handful of BEmONC facilities, and these incentives were found to motivate people to seek treatment in and to adhere to the referral pathway. These services are offered or supported by INGOs, and include paying transport costs for referrals, providing safe delivery kits and newborn kits, and offering some medicines during follow up visits.

RECOMMENDATIONS FOR GLOBAL HUMANITARIAN COMMUNITY

"What I would like care providers or decision-makers to know is that women suffer severely... when it comes to transfers for obstetrical complications and neonatal care, that they think about improving conditions to alleviate cases and that they send qualified personnel to our health facilities."

CEmONC client, CAR

Though many of the recommendations below ultimately require ownership and actions by national- and sub-national actors, the global community has a responsibility to ensure that humanitarian responses and programs are intentionally designed and supported so as to ensure critical components of care are available at all levels. We therefore expect global leadership on these asks. Additionally, while this study was focused specifically on humanitarian-affected settings, numerous recommendations emerged for respective Ministries of Health, Education, and Transportation, for professional associations and training institutions, and for district- and state-level officials, in addition to recommendations for humanitarian actors.

1 **Standardization of guidelines and tools:** Stakeholders in both countries expressed a need for harmonized referral tools to be used by all partners that feed into national data systems. Initially, this might be supporting Ministries of Health (MoH) with developing national referral protocols, standard operating procedures for the use of ambulances, and guidelines for paramedics or ambulance drivers. In addition, this could include guidance for conducting referral audits; referral and counter-referral tools; and support for identifying and funding recommendations that emerge from mortality audits. Humanitarian agencies could then support dissemination and training on these guidelines and tools through health cluster and technical working groups.

2 **Advocacy for increased resources:** As the evidence base for MNH continues to grow and innovative solutions emerge, there is a fear that resources are stagnating or even dwindling for delivering basic, routine medical care, and therefore consistent support for EmONC trainings and supplies is lacking. Ensuring that EmONC services are included within all international humanitarian appeals as a part of core primary health care services is critical, as well as advocating to donors to integrate EmONC support into programming investments.

3 **Capacity building:** In addition to strengthening infrastructure for EmONC, humanitarian agencies should offer routine trainings on EmONC both to responders and to providers operating within INGO-supported facilities, and should meaningfully look to engage women, lower-level cadres of workers, and providers operating in more rural or hard-to-reach facilities and districts. Furthermore, modules on respectful maternity care, patient communication, psychosocial support, and patient rights should be incorporated into pre- and in-service training curriculum.

"…I need training of my staffs, especially those who are working in labor room antenatal and postnatal. Yes, because they did not know anything about the BEmONC - that is what they told to me yesterday, so I also appealing to you people so that we need a training on BEmONC"

BEmONC Provider, Nigeria

4 **Mentorship:** In fluid responses where periods of unexpected insecurity can arise, it is imperative that all providers are prepared to respond rapidly to shifting needs and can deliver services to the full scope of their practice. Working with national actors to establish or support mentorship programs may be one solution – such programs could consider creating incentives for providers to rotate through more insecure areas or "hot spots", creating centers of excellence at regional or district level, sponsorship programs for select providers to gain specialized skills, or establishing a pool of trained providers who can deliver trainings and refresher trainings as needed.

5 Free and comprehensive services: Humanitarian actors must ensure that program budgets account for free delivery of EmONC services, and they need to support the required inputs for effective EmONC which includes drugs, medical supplies, telecommunications, and transportation. For example, equipping all facilities, including primary centers and those at lower level, with communication equipment (mobile or satellite phones, plus sufficient communication credit, and/or high-frequency radios) for referral management. Communication equipment should ideally also be available within ambulances or dedicated modes of transportation. In addition, humanitarian agencies operating in protracted settings can do more to support MOHs in renovating/rehabilitating existing healthcare facilities, expanding or investing in maternity wards, and establishing low-resource specialized units, such as Kangaroo Mother Care wards, where feasible.

6 Innovative financing: Findings from CAR suggested that community mechanisms, such as pooled funds and community health insurance schemes, may be a solution for addressing resource limitations at facility level or supporting families facing financial restrictions. Similar solutions, including learning from cash and voucher programs, may be worth exploring. Disaster response funds that quickly deploy influxes of flexible funds to facilities or districts when insecurity occurs may be another solution that would allow for temporary rental of vehicles, hiring of extra paramedics/drivers, or counteract rising fuel costs.

7 Physical infrastructure and transportation: When responding through a localization strategy, humanitarian agencies must invest in sustainable solutions that will build resilience, rather than creating parallel health systems that may ultimately undermine local services. Alongside to infrastructure investments – including establishing the types of facilities that the community needs (i.e. do they need a CEmONC or would a BEmONC be sufficient when taking into consideration global standards) – agencies should identify and support, through sustainable incentives, emergency transport systems in each community to support referral processes. In addition to procuring and equipping ambulances, and appropriately training paramedics or accompanying staff so that care can be provided in transit, there may also be need to explore less-costly transport options that would allow mother and baby to be referred together and are not as impacted by poor road conditions.

8 WASH and Infection Prevention: While our study did not aim to measure WASH and Infection Prevention Control (IPC), clients did remark on how the cleanliness of a facility impacted their experience. Routine facility assessments should be conducted to evaluate WASH and IPC both at facilities and for referral transport vehicles. Findings from these assessments should be routinely incorporated into facility management systems. Additionally, there is a need to create stronger messaging for clients and providers on the benefits of maintaining the mother-baby dyad for infection prevention.

9 Referral mapping: To inform system strengthening efforts, referral mappings should be included as routine assessments to take place at purposeful intervals throughout responses, including at the beginning, when new partners enter the sector, and when there are notable changes among facilities, such as one closing. Referral pathway mappings should be conducted from community to tertiary level, and referral directories can be developed at sub-national levels and made available to all partners. They should indicate referral pathway(s) and alternatives / considerations, contact details of appropriate personnel at receiving facilities, services / care available at receiving facilities, cost of care considerations, and details for local pharmacies or drug shops, among other information. Health clusters and SRH / MNH working groups should determine the appropriate intervals and demographic scope for conducting these referrals, to ensure they are feasible to maintain.

10 Community engagement: Numerous recommendations emerged for how to strengthen community awareness. These include social and behavior change communication systems for patient education, raising awareness on danger sign recognition and care-seeking, and the importance of adhering to referrals. In addition, IEC materials and job aids can be developed that better reflect clients' cultural norms and beliefs, engaging community and religious leaders to dispel myths and misconceptions about referrals and complications. In some settings, it may be appropriate to incorporate community health promoters – including community matrons, traditional birth attendants, and traditional healers – into the referral process to ensure prompt referral and early presentation of patients at the facility.

11 Information sharing: While some findings may be generalizable or common across humanitarian responses, certain contextualized solutions or promising practices emerged – such as the innovative use of referral focal officers in Nigeria – that should be disseminated and considered for uptake in other settings. Global networks, including the Global Health Cluster, should create platforms and spaces for national actors to share learnings, experiences, and recommendations, and global stakeholders should identify opportunities that are ripe for uptake.

12 Humanitarian access: Humanitarian agencies, using the platform and gravitas of the health cluster, need to negotiate humanitarian access for referral cases in times of insecurity, ensuring that referrals are not subject to curfews or bribes, or influenced by the attitudes and beliefs of armed actors and their donors.

CONCLUSION

Globally, as the scale and scope of humanitarian responses continue to expand, it is clear the sector is not currently meeting the health needs of women, girls, and newborns, including those that require higher level care. Amidst the revision of the signal functions, the findings of this study are pertinent for the humanitarian sector as it determines how to operationalize around the new global EmONC framework, given competing priorities and strained resources. While the current signal functions have helped to elevate the importance of establishing accessible facilities that deliver minimum lifesaving services at high quality, this study highlights that focusing on facility-level care alone is not sufficient. Functioning transport and referral systems are essential for saving lives, and investments in health systems from the humanitarian community are needed to do so.

Responsibilities for improving service delivery in responses may extend beyond the humanitarian sector in some settings. In both CAR and Northeast Nigeria, as these countries transition to ongoing protracted crises, the role of the humanitarian-development nexus has begun to emerge, and therefore the responsibilities or expectations of government stakeholders have increased, and the role of the humanitarian community has evolved to work alongside them. Therefore, recommendations from this study go beyond the traditional remit of the humanitarian community. Both countries have developed MNH acceleration plans under the auspices of the global maternal and newborn health strategies – Every Newborn Action Plan (ENAP) and Ending Preventable Maternal Mortality (EPMM) – and through these efforts, the Ministries of Health in each country have outlined key priorities for MNH, identified costing needs, and appealed to the global community for targeted technical assistance. EmONC emerged as a priority in both plans, with Nigeria also including a focus on developing a preparedness and response plan for MNH, and CAR highlighting activities such as establishing village obstetric emergency units.

Therefore, these findings should be applicable to development actors, and global- and national-level policymakers as well. As strategies for accelerating progress for MNH are developed, evidence bases grow, and donors continue to invest in national health systems, due attention must be given to ensure that humanitarian-affected settings are considered and incorporated into plans, grants, and policies. This is the only way to ensure all women, girls, and babies everywhere have access to the lifesaving services they deserve.

LESSONS LEARNED DURING DATA COLLECTION

One important limitation of the study is that the research only took into consideration clients who had already decided to engage with the formal health system, and was not able to examine decision-making perspectives or experiences from community level to the facility. This means that we were unable to capture many instances of a first delay, and thus an important learning agenda remains around understanding how we can improve health counseling and literacy, care-seeking, and accessing care from community to a facility.

In addition, both countries faced challenges with identifying particularly vulnerable clients, such as survivors of sexual assault, unmarried women, or adolescent, and while the study intended to capture perspectives from those who sought EmONC care for all obstetric emergencies, the majority of respondents had sought care for pregnancy-related or newborn services. Therefore, it is unlikely that these results can be generalized for all clients seeking EmONC services, as many respondents were married women with the support of family or community.

Several key lessons emerged during the study that should be considered for future studies:

- Establishing referral protocols for psychosocial support and training data collectors in trauma-informed methods were important, as some respondents did present signs of trauma and thus interviews had to be stopped.

- Both countries experienced difficulty in identifying non-traditional users, defined as those who declined a referral for various reasons and remained at BEmONC or returned to the community, declined a referral but ultimately found their way to a CEmONC anyways, or bypassed BEmONC to go directly to a CEmONC facility. This was partly due to the existence of a strong community engagement mechanism in CAR and an acceptance in Nigeria that a referral may suggest a life-threatening complication that should be taken seriously.

- The study did encounter some refusals to participate, partly due to a lack of incentives for clients and due to a fear of job security or reprisal by providers.

- Despite translating tools into local languages, we found that for such scientific topics, some respondents were most comfortable speaking in further sub-dialects, suggesting that future studies should be as contextualized as possible.

- Data collection encountered challenges with instability, including the abrupt closing of one facility in Nigeria due to a lack of funding, and increased insecurity in Zémio (CAR) that threatened safety of data collectors and challenged access to rural sites. Flexible funding from the donor allowed for a responsive methodology that could reflect real-time changes, as should be required for all research in fragile settings.

In Nigeria, the study included only IRC-managed or -supported BEmONC facilities, which may have influenced results.

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